



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/978,475	10/16/2001	Kenneth Rose	M-11446 US	5139

33031 7590 12/01/2006

CAMPBELL STEPHENSON ASCOLESE, LLP
4807 SPICEWOOD SPRINGS RD.
BLDG. 4, SUITE 201
AUSTIN, TX 78759

EXAMINER

TANG, KAREN C

ART UNIT	PAPER NUMBER
----------	--------------

2151

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/978,475

Applicant(s)

ROSE ET AL.

Examiner

Karen C. Tang

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

- A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/27/06 has been entered.
- Claims 1-37 are presented for further examination.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalkunte et al hereinafter Kalkunte (US 6,118,761) in view of Lee et al hereinafter Lee et al hereinafter Lee (US 2002/0048280).

1. Referring to Claims 1, and 18, Kalkunte disclosed a transmitting device transmitting data at a first non-zero rate to a memory for storage (FIFO) therein during a first period of time (refer to Col 1, Lines 40-60 and Col 5, Lines 55-67);

Art Unit: 2151

the transmitting device transmitting data at a second non-zero rate to the memory for storage therein during a second period of time (refer to Col 5, Lines 55-67); wherein the second period of time is subsequent to the first period of time and (refer to Col 8, Lines 15-60).

Kalkunte disclosed the transmitting device transmitting data at a third non-zero rate to the memory for storage therein during a third period of time (refer to Col 8, Lines 15-60); storage therein during a third period of time (refer to Col 8, Lines 1-15);

Kalkunte disclosed wherein the third period of time is subsequent to the first period of time (refer to Col 8, Lines 15-60),

Kalkunte did not expressly disclose wherein the third non-zero rate is greater than the second non-zero rate, and wherein the second non-zero rate is greater than the first non-zero rate.

Lee disclosed wherein the third non-zero rate is greater than the second non-zero rate, and wherein the second non-zero rate is greater than the first non-zero rate (refer to 0044, 0054-0060, 0062, 0068).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Kalkunte and Lee since the invention are analogous.

The suggestion/motivation would have been that by indicate the priority of the flows maintain the throughput of the system as well as by and can reducing process time by sending the urgent data without processing internally first.

2. Referring to Claims 2, 11, 19, and 25, Kalkunte disclosed wherein the memory device comprises a FIFO buffer (refer to Col 1, Lines 40-55):

3. Referring to Claims 3, 12, 20, and 26, Kalkunte disclosed wherein the transmitting device is contained in a switching fabric (refer to Col 1, Lines 40), wherein the memory is contained in a line card coupled to the switching fabric via a data link (Fig 1, 18, 20 and 12, and Col 4, Lines 15-50), and wherein the transmitter transmits data via the data link to the memory for storage therein (refer to Col 4, Lines 15-35).

4. Referring to Claims 4 and 21, Kalkunte disclosed a transmit signal (refer to rate control frame, Col 2, Lines 50-67, Col 7, Lines 45-67); and
transmitting the rate control signal to the transmitting device to instruct the transmitting device to stop transmitting data at the first non-zero rate and start transmitting data at the second non-zero rate (refer to Col 2, Lines 50-67);
wherein the transmitting device stops transmitting data to the memory device at the first data rate and starts transmitting data to the memory device at the second data rate in response to the transmitting device receiving the rate control signal (refer to Col 3, Lines 1-20).

5. Referring to Claims 5, 13, 22, and 27, Kalkunte disclosed generating first data quality value representing a quantity of data stored in the memory device at a first point in time; comparing the first data quality value to a first predetermined value (refer to Col 6, Lines 15-55);
wherein the rate control signal is generated in response to comparing the first data quantity value to the first predetermined value (refer to Col 6, Lines 55-67).

Art Unit: 2151

6. Referring to Claims 6 and 23, Kalkunte disclosed comparing the first data quantity value to a plurality of determined values, wherein the first predetermined value is one of the plurality of first predetermined values (refer to Col 5, Lines 25-55);

wherein the rate control signal is generated in response to comparing the first quantity value to the plurality of predetermined values (refer to Col 8, Lines 15-60).

7. Referring to Claims 7 and 15, Kalkunte disclosed generating a second data quantity value representing a quality of data stored in the memory device at a second point in time, wherein the second point in time is prior to the first point in time (refer to Col 8, Lines 15-40);

compare first data quantity value to the second data quantity value (refer to Col 7, Lines 1-10);

wherein rate control signal is generated if the first data quantity value is not equal to the second data quantity value (refer to Col 9, Lines 25-45).

8. Referring to Claim 8, Kalkunte disclosed generating total data input count at the first point in time, wherein the total data input count represents a quantity of data input to the memory during a period of time ending in the first point in time (refer to Col 5 Lines 40-55);

generating total data output count at the first point in time, wherein the total data output count represents a quantity of data output from the memory device during the period of time ending in the first point in time (refer to Col 5, 40-55);

subtracting the total data output count from total data input count (Col 5, Lines 40-67).

Art Unit: 2151

9. Referring to Claims 9 and 17, Kalkunte disclosed wherein the second non-zero rate is greater than the first non-zero rate if the second data quantity value is less than the first data quantity value, and wherein the second non-zero rate is less than the first non-zero rate if the second data quantity value is less than the first data quantity value (it is obvious that the data quantity is large, the rate is much slow, and at the same time, if the data quantity is small, the rate is fast).

10. Referring to Claim 14, Kalkunte disclosed a plurality of comparing circuits, each one of which is configured to compare the first data quantity value to a respective one of a plurality of predetermined values (refer to Col 6, Lines 25-67), wherein the first comparing circuit is one of the plurality of comparing circuits, and wherein the first predetermined value is one of the plurality of first predetermined values (refer to Col 6, Lines 15-67);

11. Referring to Claim 16, Kalkunte disclosed wherein the first and second circuits are the same circuits (refer to Fig 1, 26 and 28).

12. Referring to Claims 10 and 24, Kalkunte disclosed a memory device configured to receive data from a transmitting device for storage therein (refer to Col 5, Lines 55-67);
a circuit configured to generate and transmit a rate control signal instructing the transmitting device to stop transmitting data to the memory device at a first nonzero rate and to begin transmitting data to the memory device at a second nonzero rate (refer to Col 6, Lines 55-67);
wherein the second non-zero rate is greater than or less than the first non-zero rate (refer to Col 6, Lines 25-67).

13. Referring to Claims 28-37, referring to limitation of Claims 1- 27.

Response to Arguments

Applicant's arguments with respect to claims 1-37 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen C. Tang whose telephone number is (571)272-3116. The examiner can normally be reached on M-F 7 - 3.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571)272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/978,475
Art Unit: 2151

Page 8

Karen Tang


JEFFREY PWU
PRIMARY EXAMINER